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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/756,918

Applicant(s)

CHEN ET AL.

Examiner

Amara Abdi

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14 and 16-20 is/are pending in the application.
- 4a) Of the above claim(s) 13 and 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14 and 16-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date See Continuation Sheet.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :01/14/2004

01/31/2007

02/07/2007

03/06/2007

05/08/2007

08/22/2007

**DETAILED ACTION**

1. Applicant's response to the last office action, filed August 15, 2007 has been entered and made of record.
2. In view of the Applicant amendments, the objections to the claims 9-15 are expressly withdrawn.
3. Applicant's arguments with respect to claims 1-12,14, and 16-20 have been considered but are moot in view of the new ground(s) of rejection.

**Claim Rejections - 35 USC § 101**

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. The claimed invention is directed to non-statutory subject matter. Claims 9-15 are rejected. "A computer program product in recordable-type medium for performing handwriting recognition" must be " a computer readable medium encoded with a computer program for performing handwriting recognition" in order to be a statutory subject matter, so that the claimed subject is "a computer readable medium" instead of "a computer program". Applicant is urged to change the claimed language to meet the interim guideline.

**Claim Rejections - 35 USC § 103**

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1,3-4,6-11,14,16-17, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. (US 6,694,056) in view of Bryborn et al. (US-PGPUB 2003/0107558).

**(1) Regarding claim 1:**

Ito et al. disclose a method for performing handwritten character recognition (Fig.2, column 1, line 59-62), the method comprising the computer implemented steps (column 1, line 19-20) of:

responsive to user input (105 in Fig. 2) to a pointing device (204 in Fig. 2) entered through a computer interface (201 in Fig. 2, column 7, line 53-55), identifying a stroke start event and a stroke end event (column 2, line 23-24);

deriving a stroke parameter from the stroke start event and the stroke end event (column 2, line 26-27), (the obtaining of a stroke information is read as the same concept as the deriving of a stroke parameter).

Furthermore, Ito et al. disclose the method where the candidate character is based on the stroke parameter (see the Abstract).

Ito et al. do not explicitly mention the transmitting of the stroke parameter to a server concurrently with the user input of a subsequent stroke, and receiving a candidate character from the server.

Bryborn, in analogous environment, teaches an electronic pen and method for recording of handwritten information, where the server has a transceiver for transmitting

and receiving the stroke parameter (paragraph [0047], lines 6-23, and paragraph [0058], line 2, and paragraph [0078], line 1-13), where the user inputs the subsequent stroke (paragraph [0048], line 8-10), (the selecting of the desired property for subsequent stroke by the user on the input page is read as the same concept as the inputting by the user of subsequent stroke).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Bryborn, where the server comprises a transceiver for transmitting and receiving a stroke information, in the system of Ito et al. in order to transfer all pen strokes input on the palette page to the server so that the latter is able to process (render) the pen strokes on the input pages in the correct way, with a short transmission times, and low power consumption in the pen (paragraph [0012], line 10-18).

**(2) Regarding claim 3:**

Ito et al. further discloses the method of handwritten character recognition system (Fig.2, column 1, line 59-62), where the step of identifying includes:

determining a first coordinate of pointing device icon (column 7, line 55), (the pointing device is read as stylus, and it is read that the coordinate input unit comprises a first coordinate) upon identifying the stroke start event (column 8, line 28), and determining a second coordinate of the pointing device icon (column 7, line 55), (the pointing device is read as stylus, and it is read that the coordinate input unit comprises a second coordinate) upon identifying the stroke end event (column 8, line 28).

**(3) Regarding claim 4:**

Ito et al. further discloses the method, where the deriving step (column 2, line 26-27) includes:

calculating a plurality of stroke parameters (column 2, line 32) from the stroke start event and the stroke end event (column 2, line 23-24).

**(4) Regarding claim 6:**

Ito et al. disclose all the subject matter as described in claim 1 above.

Ito et al. do not explicitly mention the method, where downloading a web page from the server.

Bryborn, in analogous environment, teaches an electronic pen and method for recording of handwritten information, where downloading a web page from the server (paragraph [0047], line 9), (it is read that the downloading a web page from the server is done via the wireless communication)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Bryborn, where downloading a web page from the server, in the system of Ito et al. in order to transfer all pen strokes input on the palette page to the server so that the latter is able to process (render) the pen strokes on the input pages in the correct way, with a short transmission times, and low power consumption in the pen (paragraph [0012], line 10-18).

**(5) Regarding claim 7:**

Ito et al. disclose the receiving of a match confirmation input indicating the candidate character corresponds to a character being input to the computer interface (see the Abstract, and column 3, line 24-27).

Ito et al. do not explicitly mention the communicating of the match confirmation to the server.

Bryborn, in analogous environment, teaches an electronic pen and method for recording of handwritten information, where communicating of the match confirmation to the server (paragraph [0017], line 1-3).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Bryborn, where communicating of the match confirmation to the server, in the system of Ito et al. in order to transfer all pen strokes input on the palette page to the server so that the latter is able to process (render) the pen strokes on the input pages in the correct way, with a short transmission times, and low power consumption in the pen (paragraph [0012], line 10-18).

**(6) Regarding claim 8:**

Ito et al. disclose all the subject matter as described in claim 7 above.

Ito et al. do not explicitly mention the receiving of the candidate character from the server responsive to communicating the match confirmation to the server.

Bryborn, in analogous environment, teaches an electronic pen and method for recording of handwritten information, where communicating the match confirmation to the server (paragraph [0017], line 1-3), and receiving of the candidate character from



the server (paragraph [0047], line 20-22, and paragraph [0058], line 1-5), (it is interpreted that the transceiver communicates the match confirmation to the server, and receives the candidate character from the server).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Bryborn, where receiving of the candidate character from the server responsive to communicating the match confirmation to the server, in the system of Ito et al. in order to transfer all pen strokes input on the palette page to the server so that the latter is able to process (render) the pen strokes on the input pages in the correct way, with a short transmission times, and low power consumption in the pen (paragraph [0012], line 10-18).

**(7) Regarding claim 9:**

Ito et al. disclose a computer-readable storage medium programs (column 1, line 13-15) that have a computer execute the functions for each for performing a handwriting recognition (Fig.2, column 1, line 59-62) comprising:

first instruction for displaying a collection area in a computer interface (column 12, line 38-40; column 8, line 8-10; and column 9, line 1-3), (it is interpreted that the stroke information includes areas)

second instruction adapted to determine a start point and an end point of a stroke input into the collection area (column 2, line 23-24),

third instruction, responsive to determining the start point and the end point, for calculating a stroke parameter set describing at least one attribute of the stroke (column

2, line 23-24), (the attribute of the stroke is read as the stroke start event or the stroke end event).

Furthermore, Ito et al. disclose the method where the candidate character is based on the stroke parameter (see the Abstract).

Ito et al. do not explicitly mention the transmitting of the stroke parameter to a server concurrently with the user input of a subsequent stroke, and receiving a candidate character from the server.

Bryborn, in analogous environment, teaches an electronic pen and method for recording of handwritten information, where the server has a transceiver for transmitting and receiving the stroke parameter (paragraph [0047], line 21, and paragraph [0058], line 2), (it is read that the transceiver is transmitting and receiving the stroke information at the same time), where the user inputs the subsequent stroke (paragraph [0048], line 8-10), (the selecting of the desired property for subsequent stroke by the user on the input page is read as the same concept as the inputting by the user of subsequent stroke).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Bryborn, where the server comprises a transceiver for transmitting and receiving a stroke information, in the system of Ito et al. in order to transfer all pen strokes input on the palette page to the server so that the latter is able to process (render) the pen strokes on the input pages in the correct way, with a short transmission times, and low power consumption in the pen (paragraph [0012], line 10-18).

**(8) Regarding claim 10:**

Ito et al. further disclose the computer program (column 1, line 13-15), where the computer interface includes a candidate display for displaying the candidate character received by the fifth instruction (column 7, line 51-53), (it is read that the display screen is made up for displaying a recognized character, including candidate characters).

**(9) Regarding claim 11:**

Ito et al. further disclose the computer program (column 1, line 13-15), where the candidate character displayed in the candidate display (column 7, line 51-53) is selectable by a user (column 8, line 60-61).

**(10) Regarding claim 14:**

Ito et al. further disclose the computer program (column 1, line 13-15), where the first instruction, responsive to change trajectory of the stroke input into the collection area of at least a trajectory threshold (column 14, line 27), determine a partition point (column 8, line 30-34), and wherein the stroke parameter set comprises a first stroke parameter set calculated from the start point (column 8, line 37) and the partition point (column 8, line 30-34), and a second stroke parameter set calculated (column 21, line 4-5) from the partition point (column 8, line 30-34) and the end point (column 8, line 37), (the partition point is read as the area information, which is divided in horizontally and vertically to provide certain number of divided areas).

**(11) Regarding claim 16:**

Ito et al. disclose a data processing system (column 1, line 11-12), (the input apparatus is read as the same concept as the data processing system) comprising:

A pointing device (204 in Fig. 2, column 12, line 13);

a display (203 in Fig. 2, column 12, line 6);

a memory that contains a set of instructions (column 12, line 7), (the memory is read a storage medium);

a processing unit (109 in Fig. 1, column 11, line 64, and column 12, line 4), (the word detection unit is read as the same concept as the processing unit), responsive to execution of the set of instructions, for providing a computer interface that identifies a start point and an end point of a handwritten character stroke (column 19, line 47-48) input to the pointing device (204 in Fig. 2, column 12, line 13), where a first stroke parameter set is calculated (column 2, line 32) by the processing unit (column 11, line 64) responsive to identification of the start point and the end point (column 2, line 23-24).

Furthermore, Ito et al. disclose the system where the candidate character is based on the stroke parameter set (see the Abstract).

Ito et al. do not explicitly mention a server, responsive to calculating the first stroke parameter set, for receiving the first stroke parameter set from the processing unit concurrently with user input of a subsequent handwritten character stroke to the computer interface and transmitting a candidate character to the processing unit, wherein the candidate character is based on the first stroke parameter set.

Bryborn, in analogous environment, teaches an electronic pen and method for recording of handwritten information, where the server has a transceiver for transmitting and receiving the stroke parameter (paragraph [0047], line 21, and paragraph [0058],

line 2), (it is read that the transceiver is transmitting and receiving the stroke information at the same time), where the user inputs the subsequent stroke (paragraph [0048], line 8-10), (the selecting of the desired property for subsequent stroke by the user on the input page is read as the same concept as the inputting by the user of subsequent stroke).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Bryborn, where the server comprises a transceiver for transmitting and receiving a stroke information, in the system of Ito et al. in order to transfer all pen strokes input on the palette page to the server so that the latter is able to process (render) the pen strokes on the input pages in the correct way, with a short transmission times, and low power consumption in the pen (paragraph [0012], line 10-18).

**(12) Regarding claim 17:**

Ito et al. disclose all the subject matter as described in claim 16 above.

Ito et al. do not explicitly mention the system, comprising a network adapter for connecting the data processing system to a network computer.

Bryborn, in analogous environment, teaches an electronic pen and method for recording of handwritten information, comprising a WAN interface (network adapter) for connecting the data processing system to the computer (Fig. 1, paragraph [0047], line 22).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Bryborn, where the system comprises a

network adapter for connecting the data processing system to a network computer, in the system of Ito et al. in order to transfer all pen strokes input on the palette page to the server so that the latter is able to process (render) the pen strokes on the input pages in the correct way, with a short transmission times, and low power consumption in the pen (paragraph [0012], line 10-18).

**(13) Regarding claim 19:**

Ito et al. further disclose the data processing system (column 1, line 11-12), (the input apparatus is read as the same concept as the data processing system), where the processing unit (109 in Figure 1; column 12, line 4) responsive in change in trajectory of the pointing device (204 in figure 2) of at least a trajectory threshold (column 14, line 27), calculate a second stroke parameter set (column 21, line 4-5).

**(14) Regarding claim 20:**

Ito et al. further disclose the data processing system (column 1, line 11-12), (the input apparatus is read as the same concept as the data processing system), where the computer interface (column 1, line 20) includes a candidate display (203 in figure 2) for displaying a candidate character identified by comparing (see the Abstract, and column 12, line 16-18) the first stroke parameter set with a reference parameter set of reference character dictionary (column 12, line 16-18).

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. and Bryborn et al., as applied to claim 1 above, and further in view of Kannan et al. (US 5,329,625).

Ito et al. and Bryborn et al. disclose all the subject matter as described in claim 1 above.

Ito et al. and Bryborn et al. do not explicitly mention the method, where the stroke start event is a depression of a pointing device button, and the stroke end event is a release of the pointing device button.

Kannan et al., in analogous environment, teaches a system, comprising a pen or stylus used as the primary input device (column 1, line 43-45), (the primary input device is read as a pointing device). The pointing device includes a movable tip that closes the switch (column 2, line 65-67), (the movable tip that closes is read as pointing device button), the stylus generates a magnetic field that is picked up by the digitizer, so the digitizer can distinguish between "proximity" coordinate (switch open) (release of the pointing point button) and "pen down" coordinate (switch closed) (depression of a pointing device button) (column 3, line 1-7).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Kannan et al., where the stroke start event is a depression of a pointing device button, and the stroke end event is a release of the pointing device button, in the system of Ito et al. in order to make the handwriting recognition faster while permitting digitization to be done rapidly and in an efficient manner (column 1, line 57-59).

9. Claims 5, 12 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. and Bryborn et al., as applied to claims 1, 9 and 16 above, and further in view of Ilan et al. (US 6,023,529).

**(1) Regarding claim 5:**

Ito et al. and Bryborn et al. disclose all the subject matter as described in claim 1 above.

Ito et al. and Bryborn et al. do not explicitly mention the method, where the deriving step includes the calculating of at least one stroke length, a stroke angle, and a stroke center for the stroke parameter.

Ilan et al., in analogous environment, teaches a handwritten pattern recognition, where calculating the stroke parameter length (column 1, line 67), and a stroke angle (column 3, line 62-63), and a stroke center for the stroke parameter (column 6, line 42-43).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Ilan et al., where calculating at least one stroke length, a stroke angle, and a stroke center for the stroke parameter, in the system of Ito et al. in order to provide a handwritten pattern recognition system having a plurality of parameter determining units, each determining the value of a desired parameter for an input pattern to be recognized (column 2, line 15-18).

**(2) Regarding claim 12:**

Ito et al. and Bryborn et al. disclose all the subject matter as described in claim 9 above.



Ito et al. and Bryborn et al. do not explicitly mention the computer program, where the stroke parameter set includes a length parameter, an angle parameter, and a center parameter.

Ilan et al., in analogous environment, teaches handwritten pattern recognition, where the first stroke parameter set includes a length parameter (column 1, line 67), an angle parameter (column 3, line 62-63), and a center parameter (column 6, line 42-43).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Ilan et al., where the first stroke parameter set includes a length parameter, an angle parameter, and a center parameter, in the system of Ito et al. in order to provide a handwritten pattern recognition system having a plurality of parameter determining units, each determining the value of a desired parameter for an input pattern to be recognized (column 2, line 15-18).

**(3) Regarding claim 18:**

Ito et al. and Bryborn et al. disclose all the subject matter as described in claim 16 above.

Ito et al. and Bryborn et al. do not explicitly mention the system, where the first stroke parameter set includes a length parameter, an angle parameter, and a center parameter.

Ilan et al., in analogous environment, teaches handwritten pattern recognition, where the first stroke parameter set includes a length parameter (column 1, line 67), an angle parameter (column 3, line 62-63), and a center parameter (column 6, line 42-43).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Ilan et al., where the first stroke parameter set includes a length parameter, an angle parameter, and a center parameter, in the system of Ito et al. in order to provide a handwritten pattern recognition system having a plurality of parameter determining units, each determining the value of a desired parameter for an input pattern to be recognized (column 2, line 15-18).

### **Conclusion**

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 2624

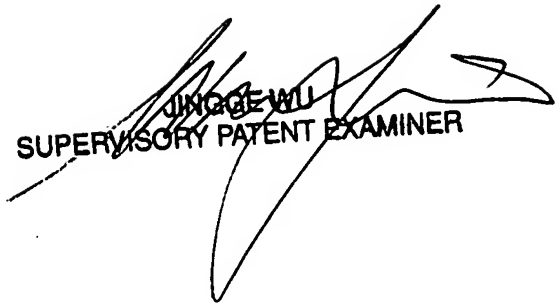
**Contact Information:**

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amara Abdi whose telephone number is (571) 270-1670. The examiner can normally be reached on Monday through Friday 7:30 Am to 5:00 PM E.T..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wu Jingge can be reached on (571) 272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Amara Abdi  
10/18/07

  
JINGGE WU  
SUPERVISORY PATENT EXAMINER